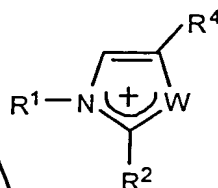


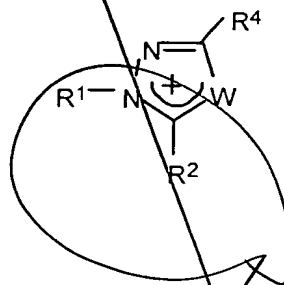
WHAT IS CLAIMED IS :

1. An ionic compound of low melting point having a cation of the onium type with at least heteroatom such as N, O, S or P bearing the positive charge and the anion including, in whole or in part, at least one imidide ion of the type $(FX^1O)N(OX^2F)$ wherein X^1 and X^2 are the same or different and comprise SO or PF.

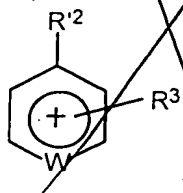
2. A compound according to claim 1 wherein the onium type cation comprises a compound of formula :



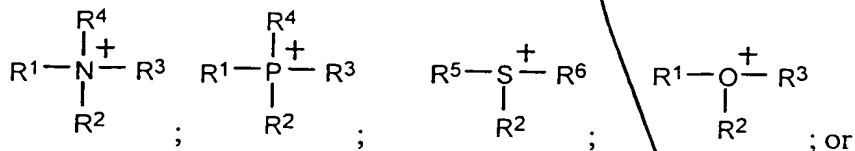
- 10 a compound of formula

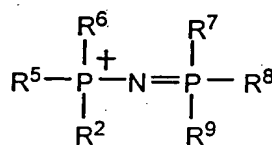


- a compound of formula



- a compound of formula





wherein

W is O, S or N, and wherein N is optionally substituted with R¹ when the valence allows it;

5 - R¹, R³, R⁴ are the same or different and represent

- H;

- an alkyl, alkenyl, oxaalkyl, oxaalkenyl, azaalkyl, azaalkenyl, thiaalkyl, thiaalkenyl, dialkylazo, each of these can be either linear, branched or cyclic and comprising from 1 to 18 carbon atoms;

10 - cyclic or heterocyclic aliphatic radicals of from 4 to 26 carbon atoms optionally comprising at least one lateral chain comprising one or more heteroatoms;

- aryl, arylalkyl, alkylaryl and alkenylaryl of from 5 to 26 carbon atoms optionally comprising one or more heteroatoms in the aromatic nucleus;

15 - groups comprising several aromatic or heterocyclic nuclei, condensed or not, optionally comprising one or more atoms of nitrogen, oxygen, sulfur or phosphorous;

and wherein two groups R¹, R³ or R⁴ can form a cycle or a heterocycle of from 4 to 9 carbon atoms, and wherein one or more R¹, R³ or R⁴ groups on the same cation can be part of a polymeric chain;

20 - R² and R⁵ to R⁹ are the same or different and represent R¹, R¹O-, (R¹)₂N-, R¹S-, R¹ being as defined above.

3. A compound according to claim 2 wherein R¹, R³ and R⁴ can bear a polymerisation active group.

4. A compound according to claim 4 wherein the polymerisation active group comprises double bonds, epoxides, or functions reactive in polycondensations.

5. A compound according to claim 2 wherein the cation comprises an ammonium, imidazolium, pyridinium or phosphonium ion unsubstituted or substituted with an alkyl group, an oxaalkyl group or a dialkylamino group comprising from 1 to 8 carbon atoms.

6. A compound according to claim 1 wherein the compound comprises at least an anion selected from Cl^- ; Br^- ; I^- ; NO_3^- ; $\text{M}(\text{R}^{10})_4^-$; $\text{A}(\text{R}^{10})_6^-$; $\text{R}^{11}\text{O}_2^-$; $[\text{R}^{11}\text{ONZ}^1]^-$, $[\text{R}^{11}\text{YOCZ}^2\text{Z}^3]^-$, 4,5-dicyano-1,2,3-triazole, 3,5-bis(R_F)-1,2,4-triazole, tricyanomethane, pentacyanocyclopentadiene, pentakis(trifluormethyl)cyclopentadiene, barbiturique acid and Meldrum acid derivatives and their substitution products;

- M is B, Al, Ga or Bi;

- A is P, As and Sb;

15 - R^{10} is a halogen;

- R^{11} represents H, F, alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl, dialkylamino, alkoxy or thioalkoxy, each having from 1 to 18 carbon atoms and being unsubstituted or substituted with one or more oxa, thia, or aza substituents, and wherein one or more hydrogen atoms are optionally replaced with halogen in a ratio of 0 to 100%, and eventually being part of polymeric chain;

20 - Y represents C, SO, $\text{S}=\text{NCN}$, $\text{S}=\text{C}(\text{CN})_2$, POR^{11} , $\text{P}(\text{NCN})\text{R}^{11}$, $\text{P}(\text{C}(\text{CN})_2)\text{R}^{11}$, an alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl having from 1 to 18 carbon atoms and optionally substituted by one or more oxa, thia or aza; a dialkylamino group $\text{N}(\text{R}^{10})_2$;

5 SUB
- Z¹ to Z³ representing independently R¹¹, R¹¹YO or CN, this group being optionally part
of a polymeric chain.

7. A electrolytic composition comprising at least one ionic compound according
5 to claim 1 in combination with at least another component comprising a metallic salt, a
polar polymer and/or an aprotic co-solvent.

8. An electrolytic composition according to claim 7 wherein the cation of the
metallic salt is selected from the proton, the cation of an alkaline metal, an alkaline-earth
10 metal, a transition metal or a rare earth.

9. An electrolytic composition according to claim 7 wherein at least one metallic
salt is a lithium salt.

10. An electrolytic composition according to claim 7 wherein the polar polymer
15 comprises monomer units derived from ethylene oxide, propylene oxide,
epichlorohydrine, epifluorohydrine, trifluoroepoxypropane, acrylonitrile,
methacrylonitrile, esters and amides of acrylic and methacrylic acids, vinylidene fluoride,
N-methylpyrrolidone and polyelectrolytes of the polycation or the polyanion type.

20 11. An electrolytic composition according to claim 10 wherein at least one of the
polymers is cross-linked when the composition comprises more than one polymer.

12. An electrolytic composition according to claim 7 wherein the aprotic co-
25 solvent is selected from di-alkyl ethers of ethylene glycol, diethylene glycol,

triethylene glycol, polyethylene glycols of weight comprised between 400 and 2000; esters, in particular those of carbonic acid, linear or cyclics such as dimethylcarbonate, methyl-ethylcarbonate, diethylcarbonate, ethylene carbonate, propylene carbonate; esters like γ -butyrolactone, nitriles like glutaronitrile, 1,2,6-tricyanohexane, amides such as dimethylformamide, N-methylpyrrolidinone, sulfamides and sulfonamides and mixtures thereof.

13. An electrochemical generator having at least one positive electrode and at least one negative electrode characterised in that it uses as the electrolyte an electrolytic composition according to claim 7.

14. An electrochemical generator according to claim 13 characterised in that the negative electrode comprises lithium or an alloy thereof, a carbon insertion compound, in particular petroleum coke or graphite, a low insertion potential oxide such as titanium spinel $\text{Li}_{4-x+3y}\text{Ti}_{5-x}\text{O}_{12}$ ($0 \leq x, y \leq 1$), a double nitride of a transition metal and lithium such as $\text{Li}_{3-x}\text{Co}_z\text{N}$ ($0 \leq z \leq 1$) or having a structure of the antifluorite type such as Li_3FeN_2 or Li_7MnN_4 , or mixture thereof.

15. An electrochemical generator according to claim 13 wherein the positive electrode comprises VO_x ($2 \leq x \leq 2,5$), mixed oxide of lithium and vanadium LiV_3O_8 , a double oxide of cobalt and lithium optionally partially substituted of general formula $\text{Li}_{1-\alpha}\text{Co}_{1-x+y}\text{Ni}_x\text{Al}_y$ ($0 \leq x + y \leq 1$; $0 \leq y \leq 0,3$; $0 \leq \alpha \leq 1$), a manganese spinel optionally partially substituted of general formula $\text{Li}_{1-\alpha}\text{Mn}_{2-z}\text{M}_z$ ($0 \leq z \leq 1$) wherein $\text{M} = \text{Li, Mg, Al, Cr, Ni, Co, Cu, Ni, Fe}$, a double phosphate of the olivine or Nasicon structure such as $\text{Li}_{1-\alpha}\text{Fe}_{1-x}\text{Mn}_x\text{PO}_4$, $\text{Li}_{1-x+2\alpha}\text{Fe}_2\text{P}_{1-x}\text{Si}_x\text{O}_4$ ($0 \leq x, \alpha \leq 1$), a rhodizonic acid salt, a

polydisulfide derived from the oxydation of dimercaptoethane, 2,5-dimercapto-1,3,4-thiadiazole, 2,5-dimercapto-1,3,4-oxadiazole, 1,2-dimercaptocyclobutene-3,4-dione, or mixtures thereof.

5 16. An electrochemical generator according to claim 15 wherein at least one of the electrode is mixed with the electrolytic composition to form a composite electrode.

10 17. An electrical energy storage system of the supercapacity type characterized in that it uses as the electrolyte in electrolytic composition according to claim 7.

15 18. A system according to claim 17 characterised in that it contains carbon with high specific surface in at least one electrode.

20 19. A system according to claim 17 characterized in that it contains a conjugated polymer in at least one electrode.

25 20. A system according to claim 17 characterized in that it contains in both electrodes a conjugated polymer having three degrees of oxydation.

 21. A system according to claim 20 characterized in that the conjugated polymer is a phenyl-3-thiophene derivative.

 22. A light modulation system of the electrochromic type comprising at least one electrochromic material characterized in that the electrolyte is an electrolytic composition according to claim 7.

23. A modulation system according to claim 22 characterized in that the electrochromic material is deposited on a semi-conductor layer transparent in the visible, derived from tin oxide or indium oxide on a glass or polymer substrate.

5

24. A modulation system according to claim 23 wherein the electrochromic material is an oxide of molybdenum, tungsten, titanium, vanadium, niobium, cerium, tin or mixtures thereof.

10

25. A modulation system according to claim 22 wherein the electrochromic material is dissolve in the electrolyte.

15

26. The use of an electrolytic composition according to claim 7 as a medium for chemical or electrochemical reactions involving soluble species in the said medium.

27. A use according to claim 26 characterized in that the composition is used as a medium for reactions of Diels Alder, Friedel-Craft, mixed aldolisation, condensation, polymerisation, and for nucleophilic and electrophylic substitutions.

20

28. A use according to claim 26 characterised in that the composition comprises a chiral onium cation allowing enantionselective reactions.